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Focused Logistics: A Link to Operational Success in "2010"

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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15.Abstract:

As a result of the end of the cold war, its impact on current threat assessments, changes in the National Security Strategy and defense posture and sufficiency reviews; U.S. Forces are transitioning through an inter-war period. Advancements in information technology and better business practices provide the opportunity for both a Revolution in Military Affairs and Military Logistics.

Joint Vision 2010 provides the conceptual template for this transition. The four operational concepts of Joint Vision are: dominant maneuver, precision engagement, full dimensional protection and focused logistics. As progress in all of these operational concepts is achieved and merged with developing technologies, operational commanders will have the opportunity to employ and combine forces differently than today to achieve operational success across the full spectrum of military operations. Focused Logistics will enable this change as well as support the potential for extending operational reach with sustainable, rapid deployment capability across strategic distances.

Focused logistics is *"a"* critical part of the equation in successfully achieving the goals of Joint Vision 2010 and future operational requirements of U.S. Armed Forces. It is, however, not *"the"* critical link.

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Abstract of

Focused Logistics: A Link to Operational Success in "2010"

As a result of the end of the cold war, its impact on current threat assessments, changes in the National Security Strategy, and defense posture and sufficiency reviews, United States Forces are transitioning through an inter-war period. Advancements in information technology and better business practices provide the opportunity for both a Revolution in Military Affairs (RMA) and a Revolution in Military Logistics (RML).

Joint Vision 2010 (JV 2010) provides the conceptual template for this transition. The four operational concepts of JV 2010 are: dominant maneuver, precision engagement, full dimensional protection and focused logistics. As progress in all of these operational concepts is achieved and merged with developing technologies, operational commanders will have the opportunity to employ and combine forces differently than today to achieve operational success across the full spectrum of military operations. Focused Logistics will enable this change as well as support the potential for extending operational reach with a sustainable, rapid deployment capability across strategic distances.

Focused logistics is "*a*" critical part of the equation in successfully achieving the goals of Joint Vision 2010 and future operational requirements of U.S. Armed Forces. It is, however, not "*the*" critical link.

The foundation for transitioning through the current inter-war period facing the U.S. Armed Forces began with Joint Vision 2010—the 1996 conceptual template for future joint warfighting. Then Chairman of the Joint Chiefs of Staff, General John M. Shalikashvili, outlined Focused Logistics as one of four operational concepts as a path to achieving "full spectrum dominance."[1] Subsequently, the current Chairman, General Henry H. Shelton stated in a 1998 speech, entitled "Operationalizing [sic] Joint Vision 2010", that "in the past few years, we have made dramatic progress in charting a course to the future. Now we must begin to translate that vision into concrete reality."[2]

U.S. Forces are mid-course in this transition. This is especially true regarding focused logistics--its concepts and programs-- and its ability to enable future operational concepts. The following three questions provide a framework for this paper's discovery and synthesis: Will focused logistics enable an operational commander to combine forces and actions to attain operational objectives in 2010 differently than today? Does this affect operational reach in responding across the range of military operations? And, is focused logistics *the* critical link in future operational successes?

These questions yield various answers and implications, reveal some problems and concerns, and on occasion leave the question only partially answered. The lack of concrete answers and unanswerable portions are due to forthcoming Research, Development, Testing and Evaluation (RTD&E) and the fielding of enabling processes and technologies. Once tested and fielded, these enablers will then be combined with new operational concepts for "mid to long-term" implementation at the service and joint experimentation level. Admiral Harold W. Gehman, Commander-in-Chief, US Joint Forces Command most pointedly made this caveat regarding time and future concepts during an interview this past

December, where he qualified mid-term goals as, "implementing the concepts of Joint Vision 2010...which sit just outside the Future-Years Defense Plan time frame (i.e., 2001to 2004). Mid-term experiments will combine joint capabilities with emerging technologies and evolutionary operational concepts. We don't know the answers to all the concepts of Joint Vision 2010, so a lot of work [remains] to be done."[3]

As a baseline for this paper, here are two definitions and a quick précis regarding the purpose of focused logistics:

> *Focused Logistics* is the fusion of information, logistics, acquisition and transportation technologies to provide rapid crisis response, track and shift assets while en route, and deliver tailored logistics packages and sustainment directly at the strategic, operational, and tactical levels of operations.[4]

> *Operational Logistics* ties tactical requirements to strategic capabilities in order to accomplish operational plans. It encompasses support required to sustain joint/combined campaigns and other military activities within an area of responsibility. Military units, augmented by Department of Defense civilians, civilian contractors and host nation resources, constitute the organizational structure of elements found at this level. The primary focus of the operational logistician is on reception, discharge, onward movement of forces, positioning of facilities, material management, theater level maintenance, movement control, distribution, reconstitution and redeployment.[5]

> *Summary Strategy Extract from the Quadrennial Defense Review*: Focused logistics will reduce the overall size of logistics support while helping to provide more agile, leaner combat forces that can be rapidly deployed and sustained around the globe...this move towards focused logistics should continue to result in more responsive logistics support at a lower cost.[6]

Having established some basic points of reference, will focused logistics enable an operational commander to combine forces and actions to attain operational objectives in 2010 differently than today? The operative word here is "differently" and the answer is "yes." To date, however, there are varying levels of certainty to that "yes" and the "difference" lies in the success of future maneuver concepts and the ability of each service's

re-engineered logistics processes to support them. Joint Vision 2010 professes that "by 2010 we should be able to change how we conduct the most intense joint operations. Instead of relying on massed forces and sequential operations, we will achieve massed effects in other ways."[7]

In a defense posture and sufficiency study from Columbia University, the authors articulate guidelines for restructuring and reorganizing forces to facilitate greater flexibility in sizing and tailoring force packages. The proposed force compositions would allow for more rapid deployment while reducing sustainment requirements. The intended result is more fluid operational capabilities dispersed across the depth of the battlefield.[8] Today's operational concepts are building on the idea of modular units that allow split-based operations and enable the theater commander to combine maneuver forces and tailor the size of required support structure.[9] Similarly, a current proposal from the Defense Science Board under consideration by the Department of Defense (DoD), is the formulation of Joint Rapid Response Forces (J-ROFs). This combination would build on current and/or near-term rapid response capabilities of each of the services: "...the Army's medium weight force and Army After Next (AAN) concepts; the Navy's 'forward from the sea' doctrine, the U.S. Marine Corps' 'operational maneuver from the sea' doctrine; and the Air Force's Expeditionary Aerospace Force (AEF)."[10] This proposition combines forces differently and partially realizes Joint Vision 2010 concepts while addressing an interim "gap" highlighted during recent operations in Kosovo—the need for an adequate and responsive ground capability. This proposed combination would provide a "dominant force package, deployable within 24-96 hours, able to enter into combat operations while operating independently of large, vulnerable bases by accessing 'austere' ports and airfields, provide

increased lethality...integrate with coalition forces; access improved intelligence... and be supported by tailored logistics support [packages]..."[11]

What are some focused logistics concepts/programs that do or will enable this or other future force combinations? The services' logistics initiatives are moving towards smaller, more efficient (strategic and operational logistics) and more effective (tactical logistics) sustainment, dovetailing with Joint Vision 2010.

The Army's "Revolution in Military Logistics" (RML) and the Air Forces' "Lean Logistics" objectives are improving responsiveness while reducing stockpiles, facilities and personnel.[12] The Navy is developing a concept known as "Sea Based Logistics" to support their doctrinal concept of "Forward...from the Sea" and the Marine Corps' 'Operational Maneuver From the Sea' (OMFTS) and 'Ship-to-Objective Maneuver' (STOM)." By operating from a support base at sea, shore-based logistics footprint is reduced. This results in lighter, more agile tactical forces operating on land as part of joint and/or coalition operations.[13] Specific current enablers such as: Joint Total Assets Visibility (JTAV), Global Transportation Network, Transportation Coordinator's Automated Information Management System II, (TC AIMS II), and strategic lift improvements have seen success in recent deployments, demonstrating achievements with Joint Reception, Staging, Onward-movement and Integration (JRSOI) and the potential for continued progress in the services' logistics system re-engineering programs.[14] Other on-going efforts that are indicative of the potential enabling power of Focused Logistics are: Theater Distribution, Global Combat Support System (GCSS), Joint Decision Support Tools (JDST) and Joint Theater Logistics Command and Control (JT LOG C2). All are well-documented projects with quantifiable

metrics and definitive milestones with over-sight from General Accounting Office, the Office of Management and Budget, and congressional staffs.[15]

But when does "lean" become "anorexic?" A Defense Week article, dated 18 January 2000, reports that "Top Carrier Warplanes Run Low on Parts," indicating that the supply system and the people who run it are being stressed more than previously revealed—perhaps more than they can handle if overlapping wars break out in the Middle East and on the Korean peninsula, for example."[16] A solution to this shortfall is tighter management of on-board inventory and the fielding of new technology and replacement platforms to decrease supply and maintenance demands.

Even with advancements in operational concepts and weapons' system efficiency and reliability, there is a limit to how small the logistics system can become without diminishing support to warfighters.[17] A rather poignant example in the race to reduce the logistics footprint can be found in the Navy's "Sea-based Logistics" as it applies to the Marine Corps' OMFTS and STOM. The tenet of "ship-to-objective-logistics" claims that indefinite sustainment through aerial delivery, mobile combat service support assets (combat trains) and establishment of forward arming and refueling points (FARPS) will replenish land forces. Sustained re-supply of bulk fuel, water and ammunition from an "over-the-horizon" floating distribution center for a Marine Expeditionary Brigade seems rash and untenable. The authors of the concept acknowledge that, "Sustaining fuel and water to mobile force will absorb large portions of seabased distribution capabilities"[18] without really offering viable solutions. Lieutenant General Paul Van Riper, Commanding General Marine Corps Combat Development Command, voices this same concern more emphatically; stating, "Sustaining deeply inserted vertical assault forces and rapidly

penetrating surface assault forces from a seabase presents a critical challenge. The absence of dumps ashore, limited re-supply delivery means and rapidly maneuvering combat forces combine to make "logistics push" techniques undesirable and infeasible." [19] General Krulak, the 31st Commandant of the Marine Corps, sees the merits of pursuing a concept like "sea-based logistics" because of the "physical protection afforded to what, in the past, would have been vulnerable rear areas ashore. The absence of those facilities eliminates the need for Marines to defend from attack either [logistics units] or their lines of communications."[20] There is merit with the concept and with both senior officers' concerns and assertions.

Whether or not "sea-based logistics" or any other logistics or maneuver concept is workable today should not become the focal point. The point for the operational commander is to demand that focused logistics, specifically operational logistics concepts, focus on bridging the two great E's of military logistics—the *efficiency* of strategic logistics and the *effectiveness* of tactical logistics—with Joint Vision 2010's conceptual demands of dominant maneuver, precision engagement, and full dimensional protection.[21] Joint doctrine provides this guidance regarding the relationship of command and logistics: "to exercise control at the strategic, operational and tactical levels of war commanders must also exercise over logistics."[22] At the operational level, the Command and Control (C2) of theater logistics remains a "growth area."[23]

Second question: Will focused logistics and operational concepts affect operational reach in responding across the range of military operations? It is plausible to answer with a simple "yes." But it is better visualized, couched in the analogy of our forces being similar to an aging, overweight, inflexible boxer with outdated techniques. What will he do to get

back in the ring? He decides to go on a diet, stretches and updates his technique with new methodology and adds non-traditional forms of exercise, such as yoga or ballet to make him leaner, quicker and more agile. His fighting capabilities are improved and his reach extended. This is the challenge facing our forces: a requirement for rapid deployment, improved flexibility of doctrinal employment in order to meet global response requirements.

The opening sentence of "Focused Logistics: A Joint Logistics Roadmap" claims the answer is "yes" by stating, "...focused logistics gains full spectrum supportability across the range of possible missions envisioned in Joint Vision 2010."[24] It continues to expound, "that the precision of our logistics processes will [produce] more capable forces *when* and *where* they are needed."[25] The commitment of U.S. Armed Forces to winning two, nearly simultaneous major theater wars (MTWs), one prediction for the upcoming decade calls for the U.S. to conduct the following mix of military operations:

> Retaliatory Raids and Deterrent Deployments—two to three brief deployments involving 5,000-8,000 personnel often centered on a carrier battle group. However, in core areas, deterrent deployments could involve as many as 30,000 personnel, including ground troops.
>
> Small-Scale Wars and Combat Operations—one to two operations similar to *Just Cause* requiring 20,000 to 30,000 personnel.
>
> Stability Operations—six to seven operations similar to Haiti, Somalia, Bosnia or Kosovo involving between 3,000 and 50,000 personnel.

This prediction places the "where" globally: the Persian Gulf and Northeast Asia, Europe, the Middle East, North Africa, Central America, and the Caribbean...or anywhere else the U.S. determines to act on behalf of its interest or those of allies and friends or in protection of U.S. citizens.[26] The Secretary of Defense's Quadrennial Defense Review echoes with a similar predication and addresses the impending ability of U.S. forces to achieve global

operational reach due to developing operational concepts to respond to Lesser Regional Crises (LRCs) and Small Scale Contingencies (SSCs). Specifically the Secretary of Defense credits the "Army's 'Strategic Meeting Engagement' concept with projecting a force capable of achieving operational objectives over strategic distances, so called CONUS-to-combat operations."[27] The Secretary again forecasts in his 1999 Annual Defense Review the use of "a network centric approach, [where] maritime forces will provide greatly enhanced precision land attack and air and missile defense capabilities to theater commanders in chief (CINCs) and joint task force commanders. The result will be a sea-based capability to conduct precision engagements from the shoreline to 1,600 miles inland and to provide an effective area defense for maritime and land-based forces in theater."[28]

On the other hand, commentaries on the supportability of these concepts and the status of the RML cite counter-arguments and opinions. Members of the RAND Corporation refer to an article by COL David Fastabend's who contends that; "The major barrier to the concept of flexible, independent maneuver...remains logistics. There are no really good solutions for [sustaining] these fast-moving organizations without some kind of logistical tail that, inevitability, restricts their speed and scope..."[29]

In order to affect the operational commander's reach, what has to come first? The Revolution in Military Affairs or the Revolution in Military Logistics? Dr. Rick Eden and Thomas Edwards, from the RAND Corporation, soften this position by concurring that while "the need for an RML seems to present a classic case of an irresistible force (innovative military operations made up of more efficient weapons systems and platforms) meeting an immovable object (the logistics system); it is possible to deliver a change

without waiting on a new suite of weapons systems."[30] Focusing on and applying best commercial business practices to the military's key logistics processes have achieved demonstrated remarkable success. As the services field more efficient weapons and platforms based on new technologies; design options will reduce the demand for logistics products (i.e., fuel and maintenance). This seemingly resolves the restrictive nature of the logistical tail and enables the employment of these agile forces. Operational commanders should consider that as planners extend their reach, this might not reduce their demands for logistics. Despite more efficient and lethal systems, planners may choose to employ them in more demanding operational ways. For example, with new efficient systems, if the fuel consumption is half, then operational planners could extend the distance (reach) by a factor of two and make the demand for fuel analogous with current legacy systems. Yet it is more likely that given time both sides—operational concepts/capabilities and logistics--will progress, allowing for flexibility and extension of operational maneuver capabilities. Consequently this can extend the commander's operational reach.

If focused logistics plays a role in the extension of operational reach and enables the combination of future operational concepts and forces differently than today, is focused logistics *the* critical link in future operational successes? The short answer is "no." The rationale for this answer follows.

History is replete with examples of wars where countries and their forces capitulated because they failed to plan for or adequately attend to sustainment requirements. And, the "quippy" motto of today's logisticians', "try fighting without us," is unarguably true in a one-dimensional environment. But, in the context of Joint Vision 2010 and its imperative

for tomorrow's forces desiring full spectrum dominance, focused logistics, in and of itself, is not the only vital conduit to future operational successes.

Leaders at the Naval Doctrine Command and Marine Corps Combat Development Command say that logistics is integral to warfighting.[31] The Army Chief of Staff in the Army's Strategic Logistics Plan labels logistics as an "under-pinning" of our forces' capabilities.[32] Other opinions on the subject concur as well; such as a "white paper" on the Army's Force XXI Sustainment, identifying "logistics as a critical functional component of the maneuver combat team..."[33] Others take a more critical and perhaps a more realistic view on what permits focused logistics to facilitate a revolution in military logistics by identifying its critical characteristics.

The Director for Logistics, The Joint Staff (J4) lists the tenets of focused logistics as follows: joint deployment/rapid distribution, information fusion, joint theater logistics command and control, multinational logistics, joint health services support, and agile infrastructure. Others "gaming" the probability of a revolution in military logistics identify the fact that, "Focused logistics relies on modern information systems and technology—the critical link being information control and systems that support information technology."[34] In fact, there are slightly more than one thousand information management systems in the DoD logistics automation architecture spread across the Department of Defense infrastructure and their services.[35] This point leads back to the concept's origin, Joint Vision 2010. Graphically, information superiority and technological innovations are depicted as the "lens" that will transform (focus) all four operational concepts to achieve "full spectrum dominance." But the answer is most clearly introduced in the Chairman's

own words, "*Together*, the application of these four concepts...will provide America with the capability to dominate an opponent across the range of military operations."[36]

Advancements in information technology and better business practices provide the opportunity for both an RMA and an RML. Joint Vision 2010 provides the conceptual template for this transition. The four operational concepts--dominant maneuver, precision engagement, full dimensional protection, and focused logistics—are the four pillars of our transition plan. As progress in all four concepts are achieved and merged with developing technologies, operational commanders will have the opportunity to employ and combine forces differently than today to achieve operational success across the full spectrum of military operations. Focused logistics will enable this change as well as support the potential for extending operational reach with a sustainable, rapid deployment capability across strategic distances. And as integral as focused logistics is, it remains "*a*" critical part of the equation in successfully achieving these goals, but it is not "*the*" only link.

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